www.mamirobot.com

Free Your Life With Innovative Technology

mamirobot

PPORO User's Guide

Please read this manual before using the product.
Please keep this manual in your sight.
Please visit www.mamirobot.com for more information.

This product specially designed for the US home use.

Please check if the machine works properly several times before you clean the floor.
Please check the status of the machine when you use it for the first time.
Please stop operating the machine if you see any scratches. We are not responsible for the problems if you did not check the circumstance listed above.

Please check if there is any problem especially when you use the machine on the wooden floor and Korean heating floor.

※ This is user manual. Some images in this manual can be slightly different with the actual product.

Thank you for purchase Mamirobot.

Mamirobot vacuum cleaner which is made by patents of Mamirobot leads you to new world. The Mamirobot of remarkable cleaning ability is ...

1. Mamirobot is designed for efficient cleaning the regular floor and carpet(less than 1cm). Mamirobot can clean powerfully the normal floor and carpet by installing of vacuum suction guidance.

2. With installed Front Sensor and Side Sensor, Mamirobot follows the wall smoothly.

3. Mamirobot has the auto-recharge function similar method with Ground Controlled Approach of airplane. It guides Mamirobot to the charging station quickly and accurately.

4. Battery of Mamirobot is high-speed rechargeable and working time is long, efficient cleaning is possible.

5. With the charging station, Mamirobot and Hand Held Cleaner Zaaloo can be charged at the same time. You can clean narrow area such as edges, window frames with Zaaloo.

6. Dust cloth can be attached easily by plate for dust cloth. Plate for dust cloth located in a body of machine.

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Safety Information

Before using Mamirobot, read all safety precautions and keep these in mind to reduce the risk of accident or damage.

Mamirobot is for indoor use only. Do not use outdoors or on wet surfaces. It may cause failure.

Before using, put away any obstacles which interrupt Mamirobot movement on the floor. Obstacles could be clothes, papers, power cords, etc.

Product is design for the best vacuuming performance. Make sure if there is any small object on the bottom panel before use.

Children and pets should be supervised to ensure that they do not sit or stand on Mamirobot.

Do not use Mamirobot to pick up anything that is burning or cigarette.

Do not use Mamirobot to pick up inflammables (combustible liquids, gasoline). It can cause fire.

During operating, close any doors to prevent it from exiting the room.

Make sure that the air circular hole is not clogged.

Do not use on the table, furniture or other electronic product. Mamirobot can be damaged by falling down.

Do not use on the outdoor surface such as concrete or asphalt. It can cause failure.

Use only the charger and battery supplied by the manufacturer. Do not charge Mamirobot around any electronic product which generates heat such as a refrigerator. Make sure that Mamirobot is off the ground except the wheels while charging because it can cause fire.

Do not disassemble or repair Mamirobot except by authorized technicians. Disassembling or repairing by unauthorized person will void the warranty.

Before Use

Prepare for Cleaning

Before using, put away any obstacles which interrupt Mamirobot movement on the floor. Obstacles could be clothes, papers, power cord, etc..

Make sure if there is any small object on the bottom panel before use.

Anti-Falling Sensor

Sensors of Mamirobot can recognize the depth between current area and next area. That function prevents to fall the machine down. If the depth is more than 5 cm, the machine does not go further and arrange cleaning scope again.

Cross the Threshold

Mamirobot is designed to be able to cross the threshold when Mamirobot does not attach the dust cloth. Available height is around 1 cm and it depends on the shape of threshold. It does not cross threshold if the height is over 1 cm for safety.

Mopping Mode

For improving the efficient of damp mop cleaning, put away any obstacles which interrupt Mamirobot movement. Furthermore, with attaching dust cloth, Mamirobot could not cross the threshold and carpet. Damp Mop mode cannot be used for carpet cleaning.

There can be some dust on the wheel cause by product test.
It is not a not a sign of refurbished product or used product..

Know-How for Using

1. If the machine is not used for more than 1~2 months, battery capacity could be down. At this case, it will improve again with repetition about 2 times of full-recharge and full-discharge. Please separate the battery from the product when you don't use the machine for a long period of time.
2. Due to the properties of Ni-MH, frequent recharge may cause using time to reduce. Please use the machine after full recharge and use until the battery is fully discharged.
3. Life time of battery is 18 ~ 24 months and 500 times recharge-dischargeable. As time goes by, using time may reduce, and if the using time becomes remarkably short, you should replace it. You can purchase battery and consumable items on line http://usa.mamirobot.com.
4. The warranty of battery is 6 months.
5. Using without dust filter or using defective dust filter can cause a breakdown due to dust inside the machine. Dust filter should be replaced after 2~3 times used.
6. Please contact to 1-800-xxx-xxxx for A/S or send item to xxx,xxxx,xxxx,xxx

※ Store the packaging box in case you need to send the product for the repair.

Components

Unpack the product and check that all of the following contents are included.

Main Components

Mamirobot cleaner

Remote Controller

Hand Vacuum
(for K7)

Battery Charge Station
(for K5, K7)

Parts/Small components

Main Brush

Superfine Fibers Mop

Dust Filter

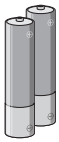
Main Brush Cover

Hair Mode Cover

※One of these covers is installed in the main body.
※Hair Mode Cover is used for hair cleaning.

100~240V(50/60Hz) Adapter
* 220v plug need to be changed to 110v plug

(Ni-MH)
Rechargeable Battery



2 AAA Remote
Controller Battery

User Manual

Name of Part

❶ Front Sensor
❷ Bumper
❸ Rubber Bumper
❹ Remote Control Sensor
❺ Display Window
❻ Status Indicator
❼ Operating Buttons
❽ Dust Bin Cover Button
❾ Dust Bin Cover

❿ Anti Falling Sensor
⓫ Recharge Plate
⓬ Front Wheels
⓭ Rear Wheel
⓮ Side Brush
⓯ Intake
⓰ Main Brush Cover (for hair mode)
⓱ Main Brush
⓲ Mapping Plate
⓳ Battery Cover

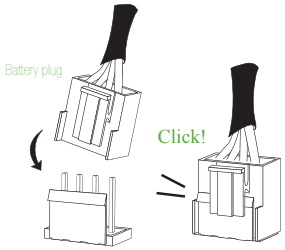
⓴ Recharging Holder for Hand Cleaner
㉑ Remote Controller Holder
㉒ Recharge Indicator ㉓ Recharge Approach Window
㉔ Charging Socket

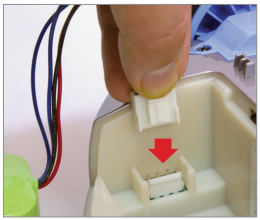
About Battery

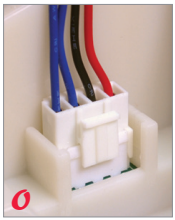
1. Mamirobot's adapter is free voltage type (100 ~240V), so you can use it in any country without limitation of voltage. With a full-recharge, the battery lasts maximum 2 hours. (Working time can be various by types of floor and cleaning mode.)
2. Because the first status of battery is not fully charged, you should charge it before using. For the first time use, battery working time could be shorter than normal. At this case, it will improve again with repetition about 2 times of full-recharge and full-discharge.
3. Life time of battery is 500 times recharge-dischargeable. As time goes by, using time may reduce, and if the using time becomes remarkably short, you should replace it. Due to the properties of Ni-MH, frequent recharge may cause using time to reduce. Please use the machine after full-recharge and use until the battery is fully discharged.
4. For the recharging failure, check the connection between adapter and power cord.
5. Actual battery life and working time varies by usages, setting, and operating conditions.

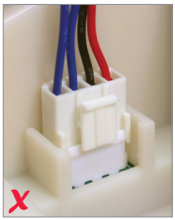
Battery Installation

1. Place Mamirobot upside down on a flat, padded surface such as on a towel or blanket. Press and slide the battery cover as shown in picture.
2. Insert the battery plug into the socket as shown in the picture. Please make sure the battery is installed properly.
3. Place the Rechargeable Battery in the battery repository and close the battery cover after well arrangement of cords.
4. Dismounting is carried out in reverse order.
5. You do not need to separate the battery once battery is installed properly. Use the battery charging station and recharge connector when you recharge the battery.




Insert plug into socket


Correct Installation

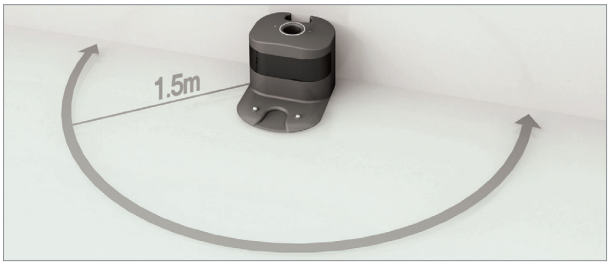

Incorrect Installation

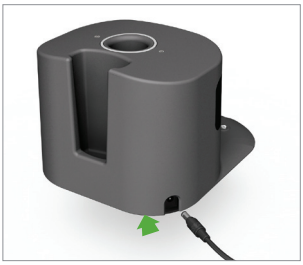
* When the connection is not good, the error code will be shown in Status Indicator and it wouldn't be recharged.
* Never touch an electrical socket or appliance with wet hands.
* If you will not use the machine for a long time, remove the battery from machine and keep in a cool & dry place.

Charging Station Installation (K5, K7)

1. Locate charging station in an even surface and stand it against the wall as shown in Figure. For the auto-recharging, make sure there is no obstacle within 1.5m radius.

2. After inserting adapt terminal into the charging station, plug the power cord in the power socket.





Recharge Using Charging Station (K5, K7)

1. In the power-on status, auto-recharge function will operate when you press the Auto-Recharge Button located in remote control or located in main body. When the function operates, Mamirobot starts to search and approach the charging station. After connecting machine with charging station, it will charge automatically.

2. During the cleaning, Mamirobot checks residual battery power. Before the battery runs out, the machine goes for recharging to the charging station automatically. During the recharging, charging indication[Chr] is turned on at status display window.

Recharge Using Adapter (K3, K5, K7)

1. Recharge the battery when you see [LO] on display window. Place the robot fully charged after cleaning.

2. Stop operating before charging.

3. After inserting adapter's terminal into the charge point of main body, plug the power cord in the power socket as shown in figure. Charging starts with turning on indication LED[Charge] and charging indication[Chr] at the status display window.

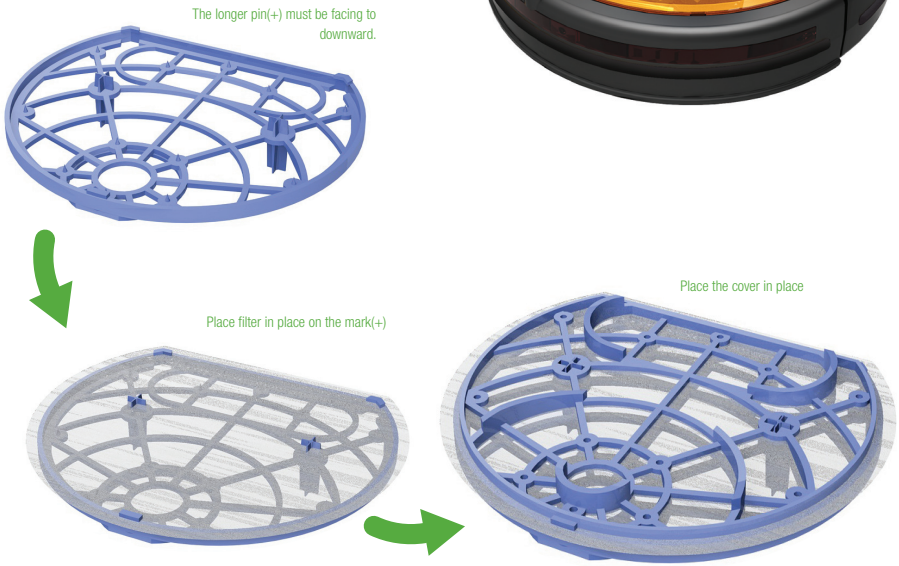
Empty Dust Bin and Replace Dust Filter

1. Press dust bin cover release and pull to remove bin. You can empty and clean dust bin easily.
2. For restraining the propagating of germs, clean dust bin with a pH-neutral detergent and rinse it with water.
3. After drying dust bin at good ventilation, install it in main body.
4. Remove dirty dust filter through separating upper filter compartment and under filter compartment as shown in picture. Replace new dust filter as shown in picture.
5. Combine filter compartment with dust bin, and install it in main body with closing dust bin cover until it “clicks” into place.

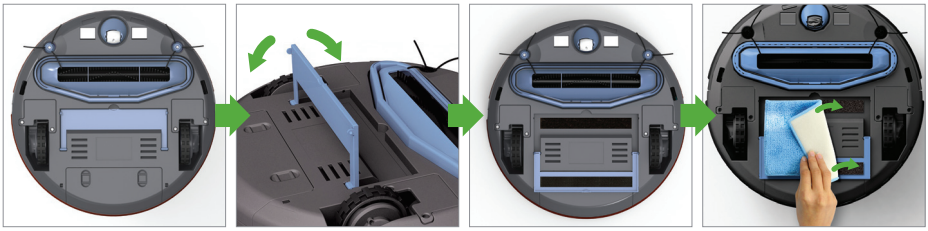
※ Do not attempt to run Mamirobot without dust filter. Using without dust filter or using defective dust filter causes failure due to dust inside the machine.

※ Dust bin and dust filter is factory assembled.

※ Dust filter should be replaced after 2 ~ 3 times used. It depends on the amount of hair and dirt in your cleaning. We recommend filter replacing after every cleaning.



Mop Installation

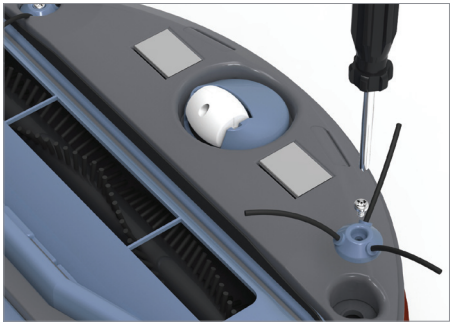


1. Place Mamirobot upside down on a flat floor (Use soft cloth to prevent dent or scratch).
2. Pull the attachment plate from its original location to the holder until it “clicks” into place as shown in Figure. If you misplace the plate, cleaning efficiency and working time can be influenced by friction between machine and floor.
3. Attach the clean and moistened cloth to the plate as shown in Figure. Use only Microfiber Dust cloth offered from Mamirobot, otherwise, working time can become shorter due to differences of area, thickness, and friction.
4. Before using with dust cloth, pick up objects like clothing, power cords for blinds or curtains, power cords, and any fragile objects.
5. Separate the attach plate to its original position when you use Mamirobot without dust cloth. If you do not return it exactly, foreign substances may be caught in the gap.
6. If you want to use damp cloth cleaning without vacuum suction, press Damp Mop Cleaning Button on the remote control. After selecting this mode, the machine works with only wheels and side brush.
7. Robot can cross threshold less than 0.5cm height when the mop is attached.

Maintenance Side Brush

Because the side brushes easily attract hair and other foreign substances, we recommend cleaning them frequently. Cleaning efficiency may decrease due to excessive foreign substances on the side brushes.

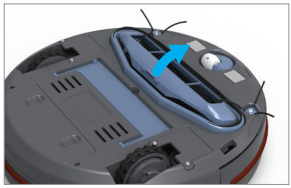
Remove the screw of the side brush turning in anticlockwise direction with (+) driver. Be careful when you remove the side brush. Using (-) driver may be helpful. Remounting is carried out in reverse order.

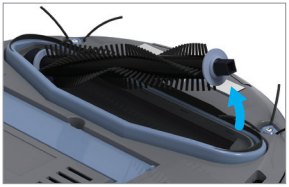


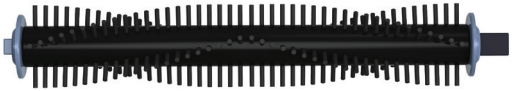
Maintenance Main Brush

For maintaining of cleaning ability, check and clean the main brush regularly.

1. Separate the main brush cover by pressing the cover releaser as shown in Figure.
2. After lifting the stator part (black cube) up, separate the rotor part from the main body. After Removing foreign substances, Reinstall the main brush and cover in reverse order.







Rotor Stator

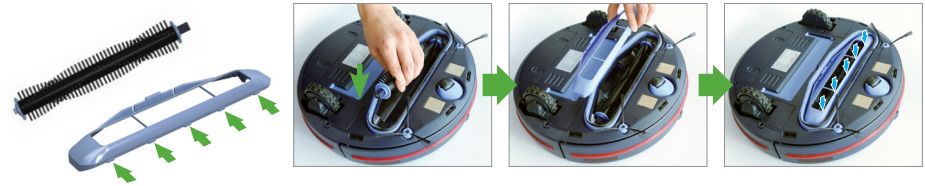
Two Types of Cover and Brush

You can choose the type of covers for increasing efficiency of cleaning. For the normal cleaning, use main brush cover with main brush. If there are dust, hair or pet's hair in the area, you can use dust cleaning cover without mounting of main brush, and press dust cleaning button on the remote control.

Make sure the cover is installed correct after installation to prevent floor dents and incorrect recharging station access

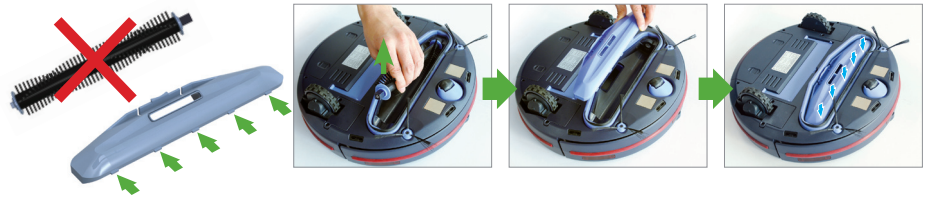
1. Normal Cleaning

Install main brush and main brush cover by referring to previous chapter 'Maintain Main Brush'



2. Hair Mode Cleaning (for dust, hair and pet's hair)

Separate main brush and main brush cover by referring to previous chapter 'Maintain Main Brush', and install dust cleaning cover.



Make sure to separate the main brush cover and main brush when you use Hair Mode. Do not use Hair Mode cover with main brush is installed. It can cause serious failure.

Composition and Name of Display Panel

❶ Status Display	❷ Quiet Mode Indicator	❸ Charging Indicator
❹ Cleaning Time Indicator	❺ Schedule Time Indicator	❻ Auto-Recharge Button
❼ Main Power Button	❽ Cleaning Time Control Button	❾ Light Sensor

❶ Status Display

Shows the selected cleaning time, scheduled time, error codes and various messages.

❷ Quiet Mode Indicator

Turns on when Low Noise Mode is selected by pressing Low Noise Mode button on the remote control.

❸ Charging Indicator

K5, K7. Press Auto Charge Button on the machine or on the Remote Controller for Auto Charge. Turns on when Mamirobot returns to the charging station to recharge and start charging.

K3 Connect recharge adapter to the main machine then Indicator lights on. Battery needs to be recharging when the Indicator's 'Lo' sign is on.

❹ Cleaning Time Indicator

Turns on when the Cleaning Time Control Button on the remote control or on the main body is pressed. Selected cleaning time is displayed on Status Display.

❺ Schedule Time Indicator (K5, K7)

Flashes when Scheduled Cleaning button on the remote control is pressed. Selected scheduled time is displayed on Status Display and the machine stands by until selected time is passed. ('after 2 hours' ~ 'after 12 hours')

❻ Auto Recharge Button (K5, K7)

When you press the Auto-Recharge Button located in main body, Mamirobot stops its work and approaches the charging station. After connecting machine with charging station, it will be charged automatically.

❼ Main Power Button

When you press the Main Power Button, Mamirobot is turned on and becomes standby status. If you press this button again, the machine will operate. When you press this button during the operating, it will stop its work. If you press Main Power Button over 2 seconds during power-on status, the machine is turned off.

❽ Cleaning Time Control Button

Each time the Cleaning Time Control Button is pressed, working time is selected as '30 min', '60 min', 'continuous'.

❾ Light Sensor

Detects the intensity of radiation for preventing that Mamirobot stops operating under bed, sofa or desk.

※ K3 Customer also can use Auto Recharge and Schedule Cleaning Time function just buying Recharge Station. Please Visit to 'usa.mamirobot.com' for more information.

Remote Controller

1. Lift the battery cover at the back of the remote control, and install the batteries into the remote control with the right polarity as shown in figure. Close it until it clicks into place.
2. For using remote control, press the main power button on the Mamirobot to stand by.
3. If the remote control does not work, check the batteries for wrong direction or make sure the main machine's status is stand-by. Sometimes the battery may be discharged due to its distribution. In this case, try again with other batteries.

1 Start/Stop Button

This button is to start operating or stop operating. This button can be used for returning to initial state during operating.

2 Auto-Recharge Button

When this button is pressed, Mamirobot stops its work and returns to the charging station to recharge its battery. If you press the other buttons while it is returning to the charging station, Mamirobot will operate those selected functions by priority.

3 Quite Mode Button

When this button is pressed, voice announcement is stopped and operating noise becomes smaller. However, sound of alarm will be operated during silent mode. When the machine stops and restarts, the silent mode will be canceled.

4 Operation/Pause Button

This button is to start operation and pause operation. Also can stop direction command pressing this button.

5 Directional Button (▲,▼,◄,►)

By using the directional button, you can move Mamirobot to clean a prefer location directly. These buttons function with Forwards, Left (move forward after turn left 15°), Right (move forward after turn right 15°)and Backwards (move forward after turn right 180°).

6 Cleaning Time Control Button

Each time the Cleaning Time Control Button is pressed, working time is selected as '30 min', '60 min', and 'continuous'.

7 Schedule Cleaning Time Button

When this button is pressed, Time delay is increased as '2 hours', '3 hours', '4 hours'... up to '12 hours'. You can also increase and decrease time delay by pressing Directional Buttons (▲,▼). Scheduled cleaning function is only performed when Mamirobot is docked with the charging station.

8 SSW Mode Button

SSW(Spider Spinning Web) is for the perfect cleaning mode. It indicates the size of the room and operates. Each time this Button is pressed, cleaning mode is selected as 'SSW', 'Normal'.

9 Mop Cleaning Button

Select this function if you want to clean with damp cloth without suction. Side Brush works.

10 Turbo Mode Button

Select this function at particularly dirty place and intensive.

11 Hair Mode Button

Use this mode for hair and pet's hair cleaning. Please separate main brush and install proper cover for this mode.

12 Intensive Cleaning Button

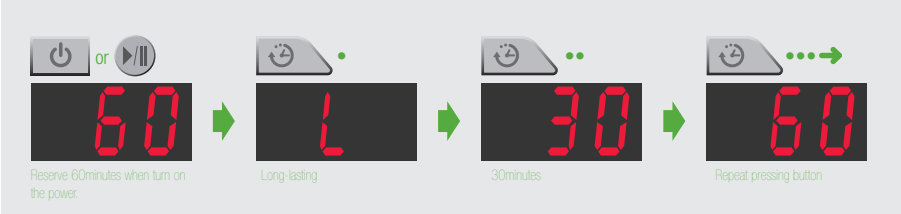
Select this function for intensive cleaning around particularly dirty area.

13 Corner Cleaning Button

Select this function for intensive cleaning around the corner and the edge.

Operating Mamirobot

1. Press the Main Power Button on the main body. Mamirobot is turned on and becomes standby status.
2. In stand-by status, Mamirobot start cleaning with pressing the Main Power Button or Start/Stop Button on the remote control. Default cleaning time is 1 hour.
3. For changing the cleaning time, press Cleaning Time Control Button on the main body or on the remote control. Each time the Cleaning Time Control Button is pressed, working time is selected as 'Continuous', '60 min', '30 min' as shown in Figure. After selecting with preferred cleaning time, start cleaning by following the step 2.



4. When you press Auto-Recharge Button on main body or on the remote control, Mamirobot stops it's work and returns to the charging station to recharge its battery. (K5, K7)
5. When the residual battery power runs out, [doc] is shown in status display with beep. The machine goes for recharging to the charging station automatically. (K5, K7)
6. Mamirobot will be turned off automatically by pressing the Main Power Button 2 seconds.
7. When no key is pressed in 2 minutes in stand-by status, Mamirobot is automatically turned off. (If Mamirobot is docked with charging station, stand-by status will be held.)
8. If you will not use the machine for a long time, remove the battery from machine.

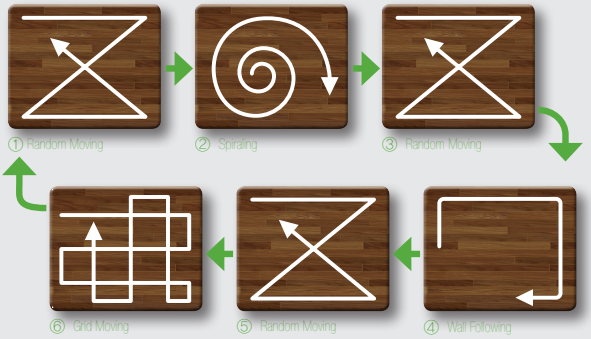
Regular Cleaning Mode

1. Mamirobot uses the six steps for cleaning the area.

① Random Moving → ② Spiraling → ③ Random Moving → ④ Wall Following → ⑤ Random Moving → ⑥ Grid Moving → Cleaning will be operated by repeating those 6 steps (each steps takes about 2 minutes

2. During cleaning, you can select Spiraling step or Wall Following step additionally. In this case, selected step will be operated around 2 min, and Mamirobot will continue working with next step.

(ex) Pressing 2 Spiraling button while operating in mode 4 it will operate about 2 minutes and continue to next mode 3,4,5 and 6 automatically.



①③⑤ Random Moving
Mamirobot goes straight until it encounters walls or obstacles. It goes forward again after selecting other direction.

② Spiraling
Mamirobot moves with a spiral motion to clean as shown in Figure.

④ Wall Following
Mamirobot approaches the wall as close as possible, and follows the wall to clean.

⑥ Grid Moving
Mamirobot moves as shown in Figure.

SSW System Mode

With SSW(Spider Spinning Web, derived from the idea of spider's ecology who starts building its house after it surveys the dimension of space and surroundings) system cleaning mode, Mamirobot measures the dimension of space that needs to be cleaned at first and then cleans up compactly and neatly. This cleaning mode will be operated by pressing [SSW] button on the remote control.

Step 1
Going round corners, it estimates the layout, location and course of space and prepares calculation of total space

Step 2
It takes 3 min. to run free mode where it calculates total number of obstacles and also the size of a room.

Step3
After determining the size of circle according to the calculated room size, it rotates toward center drawing centric circles.

Step 4
It goes to the edge of calculated room and gets ready for the last 5th stage, cleaning mode.

Step 5
It determines the size of circle to fit into the room size and proceeds cleaning with rotating and drawing centric circles.

Auto Recharge Function (K5, K7)

1. When you press Auto-Recharge Button on main body or on the remote control, Mamirobot stops it's work and returns to the charging station to recharge its battery.
2. During the cleaning, Mamirobot checks residual battery power. Before the residual battery power runs out, the machine goes for recharging to the charging station automatically.
3. While Mamirobot moves to the charging station, [doc] is shown in status display window. During the recharging, charging indication[Chr] is turned on at status display window. If you select scheduled cleaning at this situation, the time delay will be shown in status display window.
4. When charging is complete, [FU] and [LL] will be displayed in the status display window.

Seeking the charging station | The battery is charging | The battery is fully charged

5. If you press the other buttons while it is returning to the charging station or recharging, Mamirobot will operate those selected functions by priority. However, if you have selected scheduled cleaning before, Mamirobot will deny other commends with announcement of scheduled cleaning. In this case, you can give the other command by cancelling of scheduled cleaning function.
6. You can cancel the scheduled cleaning by pressing backwards Directional Button(▼) until [- - -] is shown in the status display window.

Cancellation of the scheduled time

7. If you have selected scheduled time, Mamirobot stands by until selected time is passed at the charging station.
8. Docking at the charging station can be failed by following reasons : full-discharged battery, trouble with charging station, trapped by an obstacle or trouble with main body. In this case, [End] is displayed in status display window, and it is turned out in 2 min.

Docking failure

※ If you separate the robot while it is recharging, the scheduled time will be canceled and it will stand by for 2 minutes for turning off power.

※ When you connect adapter to K5, K7, the scheduled time will be canceled automatically.

※ You can place the robot manually for recharging battery. It will start recharge automatically.

Voice Guidance

Mamirobot guides you with voice for more convenient using.

Hello, I am Mamirobot	When power is turned on.
Start Charging	When Mamirobot start recharging at the charging station or it is recharged by adapter.
Half an hour, One hour, Continue	When Cleaning Time Control Button is pressed.
Charge the battery please	When the battery voltage is low and when you press operation button in a low battery.
Charging Completed	When charging is completed.
Dust cloth cleaning on	When Damp Mop Cleaning Button is pressed.
Check the wheels please	When the wheel is not working properly with obstacles. When it runs under over load conditions. When the wheel does not touch the floor or when the sensor is failure.
Check the battery please	When the battery and main body have a wrong connection.
Check the sensors please	When the sensors have problem or when the bumper is pressed.
Check the brush please	When some object is caught in the main brush.
I am programmed	When scheduled cleaning is selected.
Cancelled	When scheduled cleaning is cancelled.
Cleaning finished	When the cleaning is completed.

Station Description

Remote Controller Holder
· Place the remote controller when it is not in use.

Recharge Holder for Hand Held Cleaner Zaaloo
· Place Zaaloo for recharging the battery.

Power and Recharging Indicator
· When it plugged by power supply, indicator is turned on with blue color.
·Indicator's color turns to red while Zaaloo is charged.
Red light blinks when it is not connected properly.
· Blue light blinks when Zaaloo battery recharge is completed.

Recharge Controlled Approach Window
· It guides Mamirobot to the charging station by similar method as Ground Controlled Approach of airplane.

Battery Recharge Connector
· It connects with cleaner for battery recharge.

Troubleshooting for Error Codes (Status Display)

Error Code	Cause and Solution
	Low Battery Error code is shown when the battery runs out or Mamirobot fails in approaching to the charging station. In this case, recharge it manually.
	Trouble with Bumper or Anti Falling Sensor Error code is shown when the bumper is pressed or a mistaken recognition of anti-falling sensor. In this case, check and remove the foreign substance from the bumper or sensor.
	Trouble with Fan Motor Error code is shown when the fan motor cannot run. In this case, check the status of installation of dust bin or dust filter. If this error code is not removed, please contact Customer Care Center.
	Trouble with Photo sensor Please contact Customer Care Center.
	Trouble with Wheel Motor Error code is shown when wheel motor cannot run. In this code, check and remove the foreign substance from wheels and stators of wheel.
	Wheel Sensor Warning Error code is shown when a wheel is not touching the ground. In this case, place it down on the flat ground and clean the sensor.
	Battery Temperature Warning Error code is shown when the battery temperature sensor detects some problem. In this case, check the status of installing of battery.
	Low Voltage Warning Error code is shown when the battery and main body have a bad connection. In this case, check the installation of battery and the connection with main body.
	Brush Motor Warning Error code is shown when a foreign substance is caught in the main brush. In this case, check and remove the foreign substance from the main brush or brush rotor.(Please see 14p)

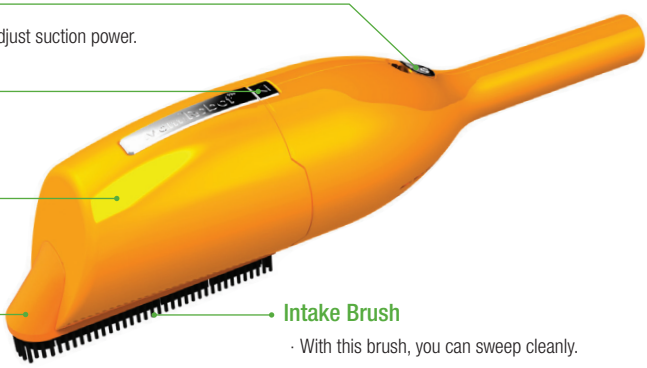
Hand Held Cleaner Zaaloo (K7)

Power Button
·With this button, you can turn it on/off and adjust suction power.

Dust Bin Release Button
·With this release, you can remove dust bin.

Dust Bin
·Dust bin can be separated with main body and can be washed with water.

Sliding Nozzle
·Effective cleaning for narrow area such a window flame.



Intake Brush
· With this brush, you can sweep cleanly.

Important Tips

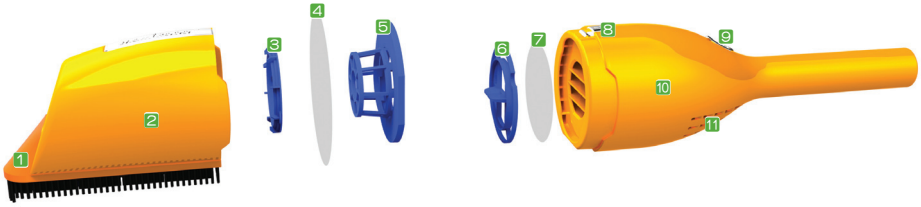
Danger.
· Do not use Zaaloo to pick up inflammables (combustible liquids, gasoline).
· Do not immerse Zaaloo and charger in water.

Caution.
· Do not use with a damaged cord or plug.
· The adapter cannot be repaired. Damaged adapter should be discarded.
· Zaaloo is not intended for use by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
· Make sure that children should not play with Zaaloo as a toy.
· Do not rinse main body of Zaaloo, recharging station and adapter with water except dust bin.

Tips.
· When you combine dust bin with main body, check the direction.
· Use only the charger and battery supplied by the manufacturer.
· During charging, heat may be generated. It does not mean defect
· After using, turn the power off.
· Make sure that the air circular hole should be not clogged.
· Turn the power off during charging.
· Using without dust filter or using defective dust filter causes a breakdown due to dust inside the machine.

* Dust filter should be replaced after 2~3 times use to prevent reducing performance.
* Do not use Zaaloo 24voltage vehicles. Zaaloo is designed for 12 Voltage.
* Before using Zaaloo, read user's manual and keep the manual for reference.

Name of Each Part



House use
(Sold Separately)

Vehicle use
(Sold Separately)

House use
(For K7)

1 Sliding Intake
2 Dust Bin
3 Dust Bin Fastening Ring
4 Dust Bin Filter
5 Filter Frame
6 Main Filter Frame
7 Main Filter
8 Bin Release Button
9 Power Button
10 Body
11 Air Circular Hole
12 Recharge Station
13 Connector for Vehicle
14 Pporo Recharge Station

12 'Recharge station sold separate for house use. It is not included with Vehicle Hand Held Cleaner or Pporo.

13 'Connector for Vehicle is for vehicle use only. It is not included with House use Hand Held Cleaner or Pporo.

14 'Recharge Station is included with K5 and K7 model.

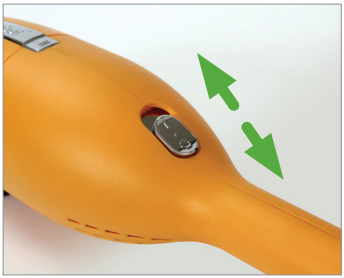
* 'Adapter' is included with House use Hand Held Cleaner and PPoro. It is not included with Vehicle use Hand Held Cleaner.

Recharging Battery

1. Locate charging station in an even surface and stand it against the wall, and insert adapt terminal into the K7 charging station.
2. After inserting adapt terminal into the K7 charging station, plug the power cord in the power socket.
3. After checking whether power is turned off, locate Zaaloo on recharge holder.
4. Indicator's color turns to red while Zaaloo is charging. After recharging, it will be changed color as blue. Recharging will be finished in 2 hours.
5. Green light blinks when charging is completed.

Operating

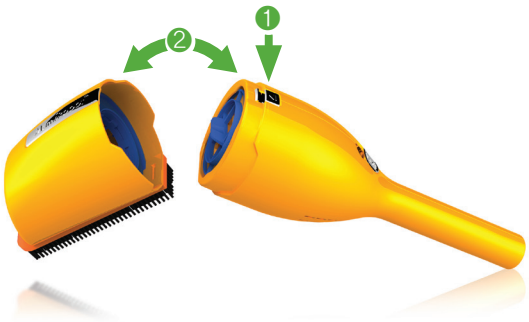
1. Separate Zaaloo from Charging Station after charging is completed
2. Turn the power on by pushing up the power button.
3. You can adjust suction power with the power button.
4. Turn the power off by pushing down the power button.

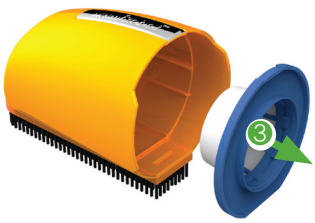


Empty Dust Bin and Maintenance

1. Press button and pull to separate dust bin as shown on the picture.
2. Empty dust bin and rinse it with water, and dry dust bin at good ventilation.
3. Combine filter compartment with dust bin, and install it in main body with closing dust bin cover until it "clicks" into place.

* Empty and clean the dust bin regularly. Do not rinse main body with water.





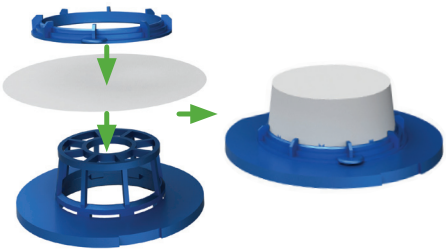
Replace Dust Filter

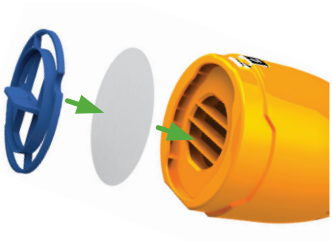
How to replace the filter

1. Remove dirty dust filter from dust bin, install the new dust bin filter in the center of dust bin filter frame as shown in figure.
2. Combine dust filter fastening ring with dust bin filter frame.

How to replace main body filter

1. Remove dirty dust filter from main body, install the new dust bin filter in between main body filter frame and main body as shown in figure.
2. Combine main body filter frame with main body.





※ The dust filter which has larger diameter is dust bin filter. Make sure that the filter is right or not.

Troubleshooting

When Zaaloo does not work

- It may be caused by low battery. Recharge the Battery.
- Check whether Zaaloo is placed in charging station correctly. Indicator's color turns to red while Zaaloo is charged.
- Check whether the power plug of the adapter is plugged correctly into the supply and green indicator is turned on.
- Remove the foreign substance from terminal of Zaaloo.
- Turn the power off before charging.
- If the problem is not solved, please contact Customer Care Center.

Indicator light does not work

- Check whether the power plug of the adapter is plugged correctly into the supply and green indicator is turned on, and check whether Zaaloo is turned off.
- If the battery is fully discharged, the charging station cannot recognize the battery. In this case, unplug the adapter from charging station and plug again. After that charging station can recognize battery correctly.
- If the power button is placed in working position, recharging will be not started. Turn the power off.

Performance Problem

- Check whether dust bin is combined with main body correctly.
- Check whether dust bin if it is full.
- It may be caused by dirty dust filter. Replace the dust bin filter and main body filter.

Dust is raised up from body

- Check whether dust bin is full.
- Check whether dust bin is combined with main body correctly.
- Check whether dust filters are installed in main body and dust bin correctly

※ Using without dust filter or using defective dust filter causes a breakdown due to dust inside the machine. Dust filter should be replaced after 2 ~ 3 times used.

Check List before Request for Service

When the problem occurs, please check the following list before service request.

When the machine cannot find the station

·Check whether the charging station's blue indicator is turned on and plug of the adapter is plugged correctly.

·Check whether [doc] is displayed in the status window on the Mamirobot.

·Check whether there are any foreign substances on the charge terminal or sensors.

·Check whether there is any obstacle within 1.5 m radius.

When charging adapter is not working

·Check whether the adapter is supplied by the manufacturer.

·Check whether the power plug of the adapter is plugged correctly into the supply and green indicator is turned on.

When the machine moves slowly

·Remove the foreign substance from wheels and stators of wheel.

Week Vacuuming

·Remove the foreign substance from the main brush or brush stator.

·Check the status of installation of dust bin or dust filter.

When the machine moves backward with pressing start button

·Remove the foreign substance from sensors, and check the bumper.

When the remote controller does not work

·Check the batteries for wrong direction or make sure the main machine's status is stand-by. Sometimes the battery may be discharged due to its distribution. In this case, try again with other batteries.

Specification

Product Name	Mamirobot Vacuum Cleaner
Model	Pporo K3, K5, K7
Battery	Ni-MH 3500mAh, 14.4V
Size	14inches (Diameter), 3.5inches (Height)
Weight	6.2 Lb (Include Battery)
Adapter	AC100~240V 50/60Hz
Dust Bin Capacity	550㎖
Charging Time	About 2 Hours
Max Cleaning Time	About 2 Hours
Cleaning Time Mode	30 min, 1 hour and continuous

Memo

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*** 출력 및 인쇄제작 금지**

법인 주소지 / 연락처
확인 후 수정 필요

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